REMARKS

The Examiner's attention is respectfully directed to claims 33 and 34, added by the Amendment filed July 6, 2005. While the Examiner has withdrawn claims 33 and 34 from consideration, the Examiner has given no basis for withdrawing claims 33 and 34 from consideration. Such withdrawal without explanation is clearly improper. See 35 USC 132.

Moreover, note that claims 33 and 34 are directed to an adhesive film, the claims being considered on the merits in the above-identified application also being directed to an adhesive film. Compare with claims withdrawn from consideration in the above-identified application, directed to a circuit board.

It is respectfully submitted that the Examiner has erred in withdrawing claims 33 and 34 from consideration on the merits in the above-identified application. Consideration of claims 33 and 34 on the merits in the present application is respectfully requested.

At the very least, if the Examiner continues withdrawal of claims 33 and 34 from consideration on the merits, the Examiner is respectfully requested to provide reasons for such withdrawal. See 35 USC 132.

The Examiner is thanked for the telephone interview courteously granted to the undersigned, in connection with the above-identified application. During this telephone interview, the undersigned indicated to the Examiner that the recitation of coefficient of thermal expansion in previously considered claim 4 would be incorporated into claim 1; and that subject matter of claim 13 would be incorporated into claim 6. Further discussion with the Examiner during this telephone interview, in connection with the double patenting rejections in the Office Action mailed September 27, 2005, was in light of these amended claims 1 and 6.

Specifically, during the telephone interview each of the obviousness-type double patenting rejections set forth on pages 2 and 3 of the Office Action mailed September 27, 2005, was traversed. It was pointed out by the undersigned, during this telephone interview, that in prior Office Actions in the above-identified application (that is, the Office Action mailed February 20, 2002, and the Office Action mailed August 27, 2002), the Examiner then handling the above-identified application had required restriction among claims drawn to a composition, claims drawn to a circuit board and claims drawn to a process for producing a circuit board; and that positions taken by the present Examiner in the present obviousness-type double patenting rejections based upon method and device claims of the applied U.S. patents, were inconsistent with the aforementioned restriction requirement. Differences between the subject matter claimed in each of U.S. Patent No. 6,034,331, No. 6,328,844 and No. 6,338,195, on the one hand, and the presently claimed subject matter, on the other, were discussed. Advantages achieved according to the present invention, due to these differences, such that the presently claimed subject matter defined a separate patentable invention from the inventions claimed respectively in each of No. 6,034,331, No. 6,328,844 and No. 6,338,195, were discussed. As to these differences, it was noted by the undersigned that the present claims recite, inter alia, insulative inorganic filler, not set forth in any claim in the three applied U.S. patents; and that while No. 6,034,331 recites a connection sheet wherein the first layer or the second layer or both comprise insulating particles, this does not disclose, nor would have suggested, insulative inorganic filler as in the present claims. No agreement was reached during the interview.

Applicants thank the Examiner for withdrawal of the rejections under 35 USC 112 and 102, contained in the previous Office Action mailed January 6, 2005, as set forth in the second paragraph on page 2 of the Office Action mailed September 27, 2005.

Moreover, Applicants respectfully traverse the obviousness-type double patenting rejections, of all of the claims presently being considered on the merits in the above-identified application, respectively over claims 1-19 of U.S. Patent No. 6,338,195; over claims 1-26 of U.S. Patent No. 6,328,844; and over claims 1-20 of U.S. Patent No. 6,034,331. In regard to each of these rejections, it is noted that the Examiner merely generally alleges that although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent are encompassed by the claims of the application.

As will be shown in the following, it is respectfully submitted that the Examiner errs in his conclusion that the claims of the respective applied patents are encompassed by those of the application. Moreover, it is respectfully submitted that this is not the proper test for obviousness-type double patenting, the proper test being whether the claims of the patent and the claims of the application are directed to separate patentable inventions (e.g., whether the subject matter claimed in the application would have been obvious, within the meaning of 35 USC 103, over the subject matter claimed in each of the respective U.S. patents).

Initially, attention is respectfully directed to the Office Action mailed August 27, 2002, in the above-identified application. In this Office Action, the Examiner required restriction among claims 1-21 and 32, drawn to a composition; claims 22 and 28-31, drawn to a circuit board; and claims 26 and 27, drawn to a process for producing a circuit board. In connection with this restriction requirement,

the Examiner stated that the product (the circuit board) can be made by another and materially different process (that is, by placing the electrodes in proximity and injecting adhesive between them to make an electrical connection). Moreover, the Examiner stated that the composition and board are related as combination and subcombination; that the combination (board) as claimed does not require particulars of the subcombination as claimed such as the modulus of elasticity and thermal coefficient of expansion recited in claims 8 and 9, and the particle size and composition as recited in claims 14 and 15; and that the subcombination (adhesive) has separate utility such as an adhesive.

As will be seen in the following, and similarly as the claims directed to the circuit board and method of making the circuit board were held by the Examiner in this Office Action mailed August 27, 2002, to define separate patentable inventions in the present application, relative to the claims directed to the adhesive film as in the present claims, claims directed to the connection method and circuit board in each of the applied No. 6,034,331, No. 6,328,844 and No. 6,338,195, define separate patentable inventions from the subject matter claimed in the above-identified application.

Thus, note that all claims of U.S. Patent No. 6,338,195 are directed to a connection method for joining together electrodes facing each other to electrically connect the electrodes to each other. This method includes the step, inter alia, of interposing a connection sheet comprising a first layer and a second layer between a pair of electrode rows such that the pair of electrode rows face each other, the first layer comprising a first adhesive having an electrical insulating property and a thermosetting property, the second layer comprising electrically conductive particles and a second adhesive having an electrical insulating property and a thermosetting

property, the second layer being placed directly over the first layer. Such method as in No. 6,338,195 would have neither taught nor would have suggested the adhesive film which includes a first adhesive layer including an adhesive resin composition and an insulating inorganic filler, as in all of the present claims. In this regard, it is emphasized that while No. 6,338,195 recites a method requiring a connection sheet with electrically conductive particles, the claims according to the present invention recite an adhesive film including insulative inorganic filler; and it is respectfully submitted that the connection method in No. 6,338,195 would have neither disclosed nor would have suggested the adhesive film, with the insulative inorganic filler, as in the present claims.

The contention by the Examiner in the next-to-last paragraph on page 2 of the Office Action mailed September 27, 2005, that the claims of the patent are encompassed by those of the application, is respectfully traversed. Note that, for example, the connection method claimed in No. 6,338,195 does not recite insulative inorganic filler, while the present claims have such recitation. It is also noted that all claims of No. 6,338,195 recite a method using a connection sheet, while the present claims recite an adhesive film. In addition, the present claims recite an average coefficient of thermal expansion of the adhesive film after curing (see claim 1); and, moreover, in claim 6, recite that the adhesive film includes a multi-layer constitution having third and fourth adhesive layers. Clearly, the Examiner errs in concluding that the claims of the patent are encompassed by those of the application.

Moreover, it is respectfully submitted that the Examiner sets forth an incorrect test for obviousness-type double patenting. That is, the Examiner appears to hold that the claims are not patentably distinct from each other, on the sole basis that "the claims of the patent are encompassed by those of the application". It is respectfully

submitted that this is an incorrect test for obviousness-type double patenting, the correct test being whether any claim in the application defines an invention that is merely an obvious variation of an invention claimed in the patent. See Manual of Patent Examining Procedure (MPEP) 804, at page 800-21. Based upon the proper test for obviousness-type nonstatutory double patenting, it is respectfully submitted that the obviousness-type double patenting rejection over claims 1-19 of U.S. Patent No. 6,338,195 is clearly improper.

U.S. Patent No. 6,328,844 defines an adhesive film in claims 1-6 and 19; however, claims 7-18, 20 and 21 define a circuit board; and claims 22-26 define a circuit connecting method or a method for manufacturing a circuit board.

For the same reason that the Examiner required restriction in the above-identified application among claims directed to the adhesive, claims directed to the circuit board and claims directed to a method, it is respectfully submitted that claims directed to the circuit board and to the method in No. 6,328,844 define a separate patentable invention from the subject matter of the present claims being considered on the merits, that is, claims directed to the adhesive film.

In addition, note that claims of No. 6,328,844, including the claims reciting an adhesive film, do not recite an insulative inorganic filler. Moreover, the claims of No. 6,328,844 fail to recite an average coefficient of thermal expansion as in various of the present claims, or the multi-layer structure of the adhesive film, as, for example, in claim 6 and claims dependent thereon. Clearly, the subject matter claimed in No. 6,328,844, and even taking into account the adhesive film claims thereof, would have neither taught nor would have suggested the presently claimed adhesive film, providing greatly improved connection reliability.

As discussed previously in connection with No. 6,338,195, the contention by the Examiner that the claims of the patent are encompassed by the claims of the application is respectfully traversed. For example, noting that the present claims recite insulative inorganic filler, and average coefficient of thermal expansion or specified multi-layer structure, not recited in any claim of No. 6,328,844, clearly the Examiner errs in his contention as to the claims of the patent being encompassed by those of the application.

In any event, and as discussed previously, whether the claims of the patent are encompassed by the claims of the application is not the proper test of obviousness-type double patenting. Applying the proper test, which is whether the claims of the patent define a separate patentable invention from the claims of the application, it is respectfully submitted that the claims of the present application, including, inter alia, the average coefficient of thermal expansion (see claim 1) and the multi-layer constitution (see claim 6), constitute a separate patentable invention from the claims of No. 6,328,844, especially the circuit board and method claims thereof, but also as compared to the adhesive film claims thereof.

No. 6,034,331 defines a connection sheet (note claims 1-7 and 13-17); and a connection structure for joining together electrodes facing each other to electrically connect the electrodes to each other (see claims 8-12 and 18-20). Clearly, the claims directed to the connection structure, as in No. 6,034,331, define a separate patentable invention from the adhesive film according to the present claims.

In addition, it is respectfully submitted that the claims of No. 6,034,331 do not recite insulative inorganic filler, as in the present claims. Furthermore, the claims of No. 6,034,331 do not recite average coefficient of thermal expansion as in, e.g.,

present claim 1 and claims dependent thereon, or the multi-layer structure including third and fourth adhesive layers as in claim 6 and claims dependent thereon.

Moreover, it is respectfully submitted that No. 6,034,331 does not recite insulative inorganic filler in the adhesive film. In this regard, attention is respectfully directed to claim 5 of No. 6,034,331, reciting insulating particles being included in the first layer or the second layer. Even in light thereof, it is respectfully submitted that the connection sheet recited in the claims of No. 6,034,331 would have neither taught nor would have suggested the presently claimed adhesive film, including the insulative inorganic filler, and/or other features of the present invention as discussed previously.

Applicants respectfully traverse the conclusion by the Examiner in the first paragraph on page 3 of the Office Action mailed September 27, 2005, that the claims of U.S. Patent No. 6,034,331 are encompassed by the claims of the application. In view of different recitations in the claims of the patent and in the claims of the application, including insulative inorganic filler, average coefficient of thermal expansion of the adhesive film, and/or multi-layer constitution including third and fourth adhesive layers, as in various of the present claims, clearly the Examiner errs in concluding that the claims of the patent are encompassed by the claims of the application.

In any event, as shown previously, whether the claims of the patent are encompassed by the claims of the application or not is not the proper test of obviousness-type double patenting, and, applying the proper test, clearly the subject matter of the claims of No. 6,034,331, including the connection sheet claims thereof, would have neither taught nor would have suggested the adhesive film as in the present claims.

In view of the foregoing, reconsideration and withdrawal of each of the obviousness-type double patenting rejections, consideration of claims 33 and 34 on the merits, and allowance of all claims being considered on the merits in the above-identified application, are respectfully requested.

Applicants request any shortage of fees in connection with the filing of this paper be charged to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (case 1303.39636X00), and any excess fees should be credited to such Deposit Account.

Respectfully submitted,

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